REMARKS

This application has been reviewed in light of the Office Action dated February 27, 2007. Claims 1-20 are pending in this application, with Claims 1 and 7 being in independent form.

Claims 1-3, 5-9, and 11-20 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 6,314,452 (*Dekel*) in view of the publication entitled "The Importance of Percent-Done Progress Indicators for Computer-Human Interfaces" (*Myers et al.*) and U.S. Patent Application Publication 2004/0234141 (*Christopoulos*); and Claims 4 and 10, as being obvious from *Dekel* in view of *Myers* and *Christopoulos*, and further in view of U.S. Patent 5,436,637 (*Gayraud et al.*).

Claim 1 is directed to a method for alerting during the progressive decoding of a digital image coded by bitplanes with a region of interest coded by a predetermined number of bitplanes to be decoded first, at least a bitplane to be decoded last corresponding to data not belonging to the region of interest. The method includes (1) detecting an end of decoding of the region of interest by checking whether the predetermined number of bitplanes has been received, and (2) activating an indication of the end of decoding of the region of interest by displaying an indicator in an indicator-display area at a predetermined position on a screen.

Among the notable features of Claim 1 are (1) detecting an end of decoding of a region of interest coded by a predetermined number of bitplanes to be decoded first, by checking whether the predetermined number of bitplanes has been received, and (2) activating an indication of the end of decoding of the region of interest by displaying an indicator.

The general nature of *Dekel*, *Myers et al.*, and *Christopolous* has been discussed adequately in previous papers, and it is not believed to be necessary to repeat those discussions.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143.

First, the Office Action states that *Dekel* discloses "detecting an end of decoding of the region of interest by checking whether the predetermined number of bitplanes has been received." Applicants strongly disagree with this assertion. According to the terms of Claim 1, the "predetermined number" in Claim 1 is less than the total number of bitplanes, since Claim 1 recites "at least a bitplane to be decoded last corresponding to data not belonging to the region of interest." *Dekel*, however, discusses detecting an end of the decoding when <u>each and every bitplane</u> has been received and decoded.

At page 2 of the Office Action, in the ***Response to Amendments and Arguments*** section, the Examiner asserts that *Dekel* teaches "detecting an end of decoding of an ROI based on the number of received bitplanes." The Examiner states in particular regarding *Dekel*: "As shown in block 1601, it is determined whether there are any remaining bitplanes to be decoded -- if there are none, then decoding is stopped, as shown in block 1605." Applicants submit again that this operation in Dekel is not a teaching or

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suggestion of checking whether a predetermined number of bitplanes has been received, this predetermined number being <u>less</u> than the total number of bitplanes, as in Claim 1.

As explained above, to establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. As also explained above, Applicants have found nothing in *Dekel* that would teach or suggest detecting an end of decoding of a region of interest coded by a predetermined number of bitplanes to be decoded first, by checking whether the predetermined number of bitplanes has been received, as recited in Claim 1. For this reason alone, Claim 1 is seen to be clearly allowable over *Dekel*, *Myers et al.*, and *Christopoulos*, whether considered either separately or in any permissible combination (if any).

Furthermore, Applicants submit that the combination of *Dekel*, *Myers et al.*, and *Christopolous* is impermissible, because the "region of interest" (ROI) discussed in *Dekel* is in effect a different concept from the "region of interest" (ROI) discussed in *Christopolous*. As explained above, the regions of interest in *Dekel* precisely define the parts of the image which have to be coded and transmitted. On the other hand, in *Christopoulos*, both the data defining a ROI and the data defining the background are coded and transmitted, as conceded by the Examiner at page 6 of the Office Action.

Thus, Applicants submit that, despite the common term ("ROI") used in both *Dekel* and *Christopolous*, a person having ordinary skill in the art would clearly understand the difference in operation proposed by the two references, and would consider the two references to relate to two separate techniques. Accordingly, it is submitted that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or

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to combine reference teachings. For this reason as well, Claim 1 is seen to be clearly allowable over *Dekel*, *Myers et al.*, and *Christopoulos*, whether considered either separately or in any permissible combination (if any).

While Applicants submit that the combination of *Dekel*, *Myers et al.*, and *Christopoulos* is impermissible, Applicants submit that even assuming *arguendo* that the combination is permissible, Claim 1 is still allowable.

This is because, first, even assuming *arguendo* that a person having ordinary skill in the art would modify *Dekel* to incorporate the teachings of *Christopoulos*, as asserted by the Examiner at page 6 of the Office Action, a person having ordinary skill in the art would not obviously change the operation of the loop in block 1601 of Fig. 16 of *Dekel*, which loop's purpose is to detect whether all of the received bitplanes have been decoded, as conceded by the Examiner at page 2 of the Office Action, as explained above.

The alleged modification to *Dekel* with *Christopoulos* would not change this principle of operation (as noted at the last line of page 6 of the Office Action) as, according to *Christopoulos*, both the data defining the ROI and the data defining the background are transmitted, as explained above. This is because, as previously pointed out, the regions of interest in *Dekel* and *Christopolous* are different concepts, and, it is submitted, a person having ordinary skill in the art cannot therefore see in block 1601 of *Dekel* the detection of the end of the decoding of region of interest as per *Christopoulos*, but only the detection as to whether each and every received bitplane has been processed.

Consequently, even assuming *arguendo* that the proposed combination of *Dekel, Myers,* and *Christopolous* is permissible (and again, Applicants submit that it is not), the hypothetical combination would still check receipt of the total number of bitplanes

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and would not teach or suggest "checking whether [a] predetermined number of bitplanes has been received", this predetermined number being strictly less than the total number of bitplanes, as in Claim 1. In a similar manner, the hypothetical combination would not teach or suggest "activating an indication" before the total number of received bitplanes has been decoded, as in Claim 1. For this reason as well, Claim 1 is seen to be clearly allowable over *Dekel*, *Myers et al.*, and *Christopoulos*, whether considered either separately or in any permissible combination (if any).

Furthermore, according to the solution proposed by *Christopoulos*, the decoder has information about the localization of the region of interest (ROI), either by transmitting the shift factor and the shape of the ROI (see paragraph [0099]), or by transmitting the shift factor and a signal "telling that the coefficients that have been received are ROI coefficients" (see paragraph [0100]).

Therefore, even assuming *arguendo* that the proposed combination of *Dekel, Myers,* and *Christopolous* is permissible (and once again, Applicants submit that it is not), and even assuming *arguendo* that such a hypothetical combination would detect the end of decoding of a region of interest as defined in *Christopoulos* (which assertion, again, Applicants strongly disagree with, but discuss here for the sake of argument), such a hypothetical combination would merely use the information discussed in *Christopoulos* to define the localization of an ROI (either the shape of the ROI or the signal indicative of the previously received data belonging to ROI); it would not "[check] whether [a] predetermined number of bitplanes has been received," as recited in Claim 1.

Accordingly, even if, assuming *arguendo*, the combination of *Dekel, Myers et al.*, and *Christopolous* is permissible, given the two concepts of region of interest

proposed by *Dekel* on the one hand and *Christopoulos* on the other hand (and again, Applicants submit that such a combination is not permissible), this hypothetical combination would not teach or suggest the method of Claim 1. For this reason as well, Claim 1 is seen to be clearly allowable over *Dekel*, *Myers et al.*, and *Christopoulos*, whether considered either separately or in any permissible combination (if any).

Applicants have found nothing in *Dekel*, *Myers et al.*, or *Christopoulos*, whether considered either separately or in any permissible combination (if any), that would teach or suggest (1) detecting an end of decoding of a region of interest coded by a predetermined number of bitplanes to be decoded first, by checking whether the predetermined number of bitplanes has been received, and (2) activating an indication of the end of decoding of the region of interest by displaying an indicator, as recited in Claim 1.

For at least the foregoing reasons, Claim 1 is seen to be clearly allowable over *Dekel*, *Myers et al.*, and *Christopoulos*, whether considered either separately or in any permissible combination (if any).

Independent Claim 7 is a device claim corresponding to method Claim 1, and is believed to be patentable over *Dekel et al.*, *Myers et al.*, and *Christopoulos* for at least the same reasons as discussed above in connection with Claim 1.
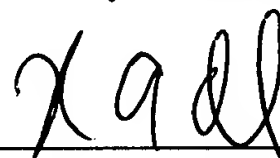
A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from Claim 1 or 7 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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